

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

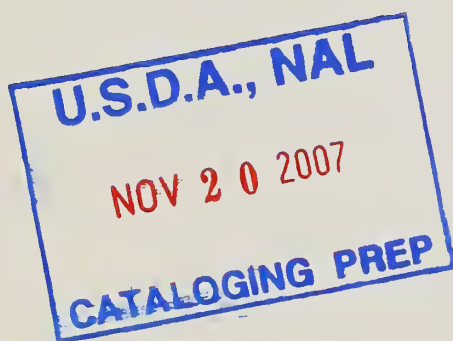
United States Department of Agriculture

Human Nutrition Information Service

HNIS/PT-103

Provisional Table on the Content of Omega-3 Fatty Acids and Other Fat Components in Selected Foods

aTX560
.F3E94
1988



For research use only

Prepared by Jacob Exler
and John L. Weihrauch

Data for the following omega-3 fatty acids are included in this table:

- 18:3 linolenic acid
- 20:5 eicosapentaenoic acid (EPA)
- 22:6 docosahexaenoic acid (DHA)

Mention of commercial products in this publication is solely for identification purposes and does not constitute endorsement by the U.S. Department of Agriculture over other products not mentioned.

United States
Department of
Agriculture



NATIONAL
AGRICULTURAL
LIBRARY

Advancing Access to
Global Information for
Agriculture

Nutrient Data Research Branch
Nutrition Monitoring Division
Slightly revised May 1986
Slightly revised October 1988

Provisional Table on the Content of Omega-3 Fatty Acids and Other Fat Components in Selected Foods (100 Grams Edible Portion, Raw)

Dashes (—) denote lack of reliable data for nutrient known to be present.
Tr= trace (less than 0.05 grams per 100 grams of food.)

Food item	Total fat	Fatty Acids			18:3	20:5	22:6	Choles-terol
		Total satu-rated	Total monoun-saturated	Total polyun-saturated				
	g	g	g	g	g	g	g	mg
Finfish								
Anchovy, European.....	4.8	1.3	1.2	1.6	--	0.5	0.9	--
Bass, freshwater.....	2.0	.4	.7	.7	Tr	.1	.2	59
Bass, striped.....	2.3	.5	.7	.8	Tr	.2	.6	80
Bluefish.....	6.5	1.4	2.9	1.6	--	.4	.8	59
Burbot.....	.8	.2	.1	.3	--	.1	.1	60
Capelin.....	8.2	1.5	3.8	1.5	.1	.6	.5	--
Carp.....	5.6	1.1	2.3	1.4	.3	.2	.1	67
Catfish, brown bullhead...	2.7	.6	1.0	.8	.1	.2	.2	75
Catfish, channel.....	4.3	1.0	1.6	1.0	Tr	.1	.2	58
Cisco.....	1.9	.4	.5	.6	.1	.1	.3	--
Cod, Atlantic.....	.7	.1	.1	.3	Tr	.1	.2	43
Cod, Pacific.....	.6	.1	.1	.2	Tr	.1	.1	37
Croaker, Atlantic.....	3.2	1.1	1.2	.5	Tr	.1	.1	61
Dogfish, spiny.....	10.2	2.2	4.2	2.7	.1	.7	1.2	52
Dolphinfish.....	.7	.2	.1	.2	Tr	Tr	.1	--
Drum, black.....	2.5	.7	.8	.5	Tr	.1	.1	--
Drum, freshwater.....	4.9	1.1	2.2	1.2	.1	.2	.3	64
Eel, European.....	18.8	3.5	10.9	1.4	.7	.1	.1	108
Flounder, unspecified.....	1.0	.2	.3	.3	Tr	.1	.1	46
Flounder, yellowtail.....	1.2	.3	.2	.3	Tr	.1	.1	--
Grouper, jewfish.....	1.3	.3	.3	.4	Tr	Tr	.3	49
Grouper, red.....	.8	.2	.1	.2	--	Tr	.2	--
Haddock.....	.7	.1	.1	.2	Tr	.1	.1	63
Hake, Atlantic.....	.6	.2	.2	.1	Tr	Tr	Tr	--
Hake, Pacific.....	1.6	.3	.3	.6	Tr	.2	.2	--
Hake, red.....	.9	.2	.3	.3	--	.1	.1	--
Hake, silver.....	2.6	.5	.7	.9	.1	.2	.3	--
Hake, unspecified.....	1.9	.5	.6	.5	--	.1	.4	--
Halibut, Greenland.....	13.8	2.4	8.4	1.4	Tr	.5	.4	46
Halibut, Pacific.....	2.3	.3	.6	.7	.1	.1	.3	32
Herring, Atlantic.....	9.0	2.0	3.7	2.1	.1	.7	.9	60
Herring, Pacific.....	13.9	3.3	6.9	2.4	.1	1.0	.7	77
Herring, round.....	4.4	1.3	.6	1.5	.1	.4	.8	28
Mackerel, Atlantic.....	13.9	3.6	5.4	3.7	.1	.9	1.6	80
Mackerel, chub.....	11.5	3.0	4.7	3.0	.3	.9	1.0	52
Mackerel, horse.....	4.1	1.2	1.4	.9	Tr	.3	.3	41
Mackerel, Japanese horse..	7.8	2.5	2.4	2.3	.1	.5	1.3	48
Mackerel, king.....	13.0	2.5	5.9	3.2	--	1.0	1.2	53
Mullet, striped.....	3.7	1.2	1.1	1.1	.1	.3	.2	49
Mullet, unspecified.....	4.4	.3	1.3	1.5	Tr	.5	.6	34
Ocean perch.....	1.6	.3	.6	.5	Tr	.1	.1	42
Perch, white.....	2.5	.6	.9	.7	.1	.2	.1	80
Perch, yellow.....	.9	.2	.1	.4	Tr	.1	.2	90
Pike, northern.....	.7	.1	.2	.2	Tr	Tr	.1	39
Pike, walleye.....	1.2	.2	.3	.4	Tr	.1	.2	86
Plaice, European.....	1.5	.3	.5	.4	Tr	.1	.1	70
Pollock.....	1.0	.1	.1	.5	--	.1	.4	71
Pompano, Florida.....	9.5	3.5	2.6	1.1	--	.2	.4	50

Food item	Total fat	Fatty Acids			18:3	20:5	22:6	Choles-terol
		Total satu-rated	Total monoun-saturated	Total polyun-saturated				
	g	g	g	g	g	g	g	mg
Finfish—Con.								
Ratfish.....	1.2	0.3	0.4	0.1	Tr	Tr	0.1	--
Rockfish, brown.....	3.3	.8	.8	1.0	Tr	.3	.4	--
Rockfish, canary.....	1.8	.4	.5	.6	Tr	.2	.3	34
Rockfish, unspecified.....	1.4	.2	.3	.6	Tr	.2	.3	--
Sablefish.....	15.3	3.2	8.1	2.0	.1	.7	.7	49
Salmon, Atlantic.....	5.4	.8	1.8	2.1	.2	.3	.9	--
Salmon, chinook.....	10.4	2.5	4.5	2.1	.1	.8	.6	--
Salmon, chum.....	6.6	1.5	2.9	1.5	.1	.4	.6	74
Salmon, coho.....	6.0	1.1	2.1	1.7	.2	.3	.5	--
Salmon, pink.....	3.4	.6	.9	1.4	Tr	.4	.5	--
Salmon, sockeye.....	8.6	1.5	4.1	1.9	.1	.5	.7	--
Saury.....	9.2	1.6	4.8	1.8	.1	.5	.6	19
Scad, Muroaji.....	8.7	2.8	2.2	2.6	.1	.5	1.5	47
Scad, other.....	.5	.1	.1	.1	--	Tr	Tr	27
Sea bass, Japanese.....	1.5	.4	.3	.5	Tr	.1	.3	41
Seatrout, sand.....	2.3	.7	.8	.4	Tr	.1	.2	--
Seatrout, speckled.....	1.7	.5	.4	.3	Tr	.1	.1	--
Shark, unspecified.....	1.9	.3	.4	.8	--	Tr	.5	44
Sheepshead.....	2.4	.6	.7	.5	Tr	.1	.1	--
Smelt, pond.....	.7	.2	.1	.3	--	.1	.2	72
Smelt, rainbow.....	2.6	.5	.7	.9	.1	.3	.1	70
Smelt, sweet.....	4.6	1.6	1.2	1.0	.3	.2	.1	25
Snapper, red.....	1.2	.2	.2	.4	Tr	Tr	.2	--
Sole, European.....	1.2	.3	.4	.2	Tr	Tr	.1	50
Sprat.....	5.8	1.4	2.0	1.5	--	.5	.1	38
Sturgeon, Atlantic.....	6.0	1.2	1.7	2.1	Tr	1.0	.1	--
Sturgeon, common.....	3.3	.8	1.6	.5	.1	.2	.1	--
Sunfish, pumpkinseed.....	.7	.1	.1	.2	Tr	Tr	.1	67
Swordfish.....	2.1	.6	.8	.2	--	.1	.1	39
Trout, arctic char.....	7.7	1.6	4.6	.9	Tr	.1	.1	--
Trout, brook.....	2.7	.7	.8	.9	.2	.2	.1	68
Trout, lake.....	9.7	1.7	3.6	3.4	.4	.5	.1	48
Trout, rainbow.....	3.4	.6	1.0	1.2	.1	.1	.1	57
Tuna, albacore.....	4.9	1.2	1.2	1.8	.2	.3	.1	54
Tuna, bluefin.....	6.6	1.7	2.2	2.0	--	.4	.1	38
Tuna, skipjack.....	1.9	.7	.4	.6	--	.1	.1	47
Tuna, unspecified.....	2.5	.9	.6	.5	--	.1	.1	--
Whitefish, lake.....	6.0	.9	2.0	2.2	.2	.3	.9	60
Whiting, European.....	.5	.1	.1	.1	Tr	Tr	.1	31
Wolffish, Atlantic.....	2.4	.4	.8	.8	Tr	.3	.1	--
Crustaceans								
Crab, Alaska king.....	.8	.1	.1	.3	Tr	.2	.1	--
Crab, blue.....	1.3	.2	.2	.5	Tr	.2	.2	78
Crab, Dungeness.....	1.0	.1	.2	.3	--	.2	.1	59
Crab, queen.....	1.1	.1	.2	.4	Tr	.2	.1	127

Food item	Total fat	Fatty Acids			18:3	20:5	22:6	Choles-terol
		Total satu-rated	Total monoun-saturated	Total polyun-saturated				
	g	g	g	g	g	g	g	mg
Crustaceans—Con.								
Crayfish, unspecified.....	1.4	0.3	0.4	0.3	Tr	0.1	Tr	158
Lobster, European.....	.8	.1	.2	.2	--	.1	.1	129
Lobster, northern.....	.9	.2	.2	.2	--	.1	.1	95
Shrimp, Atlantic brown.....	1.5	.3	.3	.5	Tr	.2	.1	142
Shrimp, Atlantic white.....	1.5	.2	.2	.6	Tr	.2	.2	182
Shrimp, Japanese (kuruma) prawn.....	2.5	.5	.5	1.0	Tr	.3	.2	58
Shrimp, northern.....	1.5	.2	.3	.6	Tr	.3	.2	125
Shrimp, other.....	1.3	.4	.3	.3	Tr	.1	.1	128
Shrimp, unspecified.....	1.1	.2	.1	.4	Tr	.2	.1	147
Spiny lobster, Caribbean....	1.4	.2	.2	.6	Tr	.2	.1	140
Spiny lobster, southern rock	1.0	.1	.2	.3	Tr	.2	.1	--
Mollusks								
Abalone, New Zealand.....	1.0	.2	.2	.2	Tr	Tr	--	--
Abalone, South African.....	1.1	.3	.3	.2	Tr	Tr	Tr	--
Clam, hardshell.....	.6	Tr	Tr	.1	Tr	Tr	Tr	31
Clam, hen.....	.7	.2	.1	.1	--	Tr	Tr	--
Clam, littleneck.....	.8	.1	.1	.1	Tr	Tr	Tr	--
Clam, Japanese hardshell....	.8	.1	.1	.1	--	.1	.1	--
Clam, softshell.....	2.0	.3	.2	.6	Tr	.2	.2	--
Clam, surf.....	.8	.1	.1	.2	Tr	.1	.1	--
Conch, unspecified.....	2.7	.6	.5	.1	Tr	.6	.4	141
Cuttlefish, unspecified.....	.6	.1	.1	.1	Tr	Tr	Tr	--
Mussel, blue.....	2.2	.4	.5	.6	Tr	.2	.3	38
Mussel, Mediterranean.....	1.5	.4	.4	.3	--	.1	.1	--
Octopus, common.....	1.0	.3	.1	.3	--	.1	.1	--
Oyster, eastern.....	2.5	.6	.2	.1	Tr	.2	.2	47
Oyster, European.....	2.0	.4	.2	.7	.1	.3	.2	30
Oyster, Pacific.....	2.3	.5	.4	.9	Tr	.4	.2	--
Periwinkle, common.....	3.3	.6	.6	1.1	.2	.5	Tr	101
Scallop, Atlantic deepsea....	.8	.1	.1	.2	Tr	.1	.1	37
Scallop, calico.....	.7	.1	--	.3	Tr	.1	.1	--
Scallop, unspecified.....	.8	.1	.1	.3	Tr	.1	.1	45
Squid, Atlantic.....	1.2	.3	.1	.5	Tr	.1	.3	--
Squid, short-finned.....	2.0	.4	.4	.7	Tr	.2	.4	--
Squid, unspecified.....	1.1	.3	.1	.4	Tr	.1	.2	--
Fish Oils								
Cod liver oil.....	100	17.6	51.2	25.6	0.7	9.0	9.5	570
Herring oil.....	100	19.2	60.3	16.1	0.6	7.1	4.3	766
Menhaden oil.....	100	32.6	32.5	29.5	1.1	12.7	7.9	521
MaxEPA™, concentrated fish body oils.....	100	25.4	28.3	41.1	0	17.8	11.6	600
Salmon oil.....	100	23.8	39.7	29.9	1.0	8.8	11.1	485

Provisional Table on the Content of Omega-3 Fatty Acids and Other Fat Components in Selected Foods (100 Grams Edible Portion)

Dashes (—) denote lack of reliable data for nutrient known to be present.
Tr= trace (less than 0.05 grams per 100 grams of food.)

Food item	Total fat	Fatty acids				Cholesterol
		Total saturated	Total monounsaturated	Total polyunsaturated	18:3	
	g	g	g	g	g	mg
Beef						
Chuck, blade roast, all grades, separable lean & fat, raw	23.6	10.0	10.8	0.9	0.3	73
Ground, regular, raw	27.0	10.8	11.6	1.0	.2	85
Round, full cut, choice grade, separable lean & fat, raw	17.5	7.4	7.8	.7	.2	66
Separable fat from retail cuts, raw	70.9	31.0	32.4	2.6	1.0	99
T-Bone steak, choice grade, lean only, raw	8.0	3.2	3.4	.3	Tr	60
T-Bone steak, choice grade, separable lean & fat, raw	26.1	11.2	11.7	1.0	.3	71
Cereal Grains						
Barley, bran	5.3	1.0	.6	2.7	.3	0
Corn, germ	30.8	3.9	7.6	18.0	.3	0
Oats, germ	30.7	5.6	11.1	12.4	1.4	0
Rice, bran	19.2	3.6	7.3	6.6	.2	0
Wheat, bran	4.6	.7	.7	2.4	.2	0
Wheat, germ	10.9	1.9	1.6	6.6	.7	0
Wheat, hard red winter	2.5	.4	.3	1.2	.1	0
Dairy and Egg Products						
Cheese, Cheddar	33.1	21.1	9.0	.9	.4	105
Cheese, Roquefort	30.6	19.3	8.5	1.3	.7	90
Cream, heavy whipping	37.0	23.0	10.7	1.4	.5	137
Milk, whole	3.3	2.1	1.0	.1	.1	14
Egg yolk, chicken, raw	32.9	9.9	13.2	4.3	.1	1,281
Fats and Oils						
Butter	81.1	50.5	23.4	3.0	1.2	219
Butter oil	99.5	61.9	28.7	3.7	1.5	256
Chicken fat	99.8	29.8	44.7	20.9	1.0	85
Duck fat	99.8	33.2	49.3	12.9	1.0	100
Lard	100	39.2	45.1	11.2	1.0	95
Linseed oil	100	9.4	20.2	66.0	53.3	0
Margarine, hard, soybean	80.5	16.7	39.3	20.9	1.5	0
Margarine, hard, soybean and soybean (hydrog.)	80.5	13.1	37.6	26.2	1.9	0
Margarine, hard, soybean (hydrog.) & palm	80.5	17.5	31.2	28.2	2.3	0
Margarine, hard, soybean (hydrog.) & cottonseed	80.5	15.6	36.1	25.3	2.8	0
Margarine, hard, soybean (hydrog.) & palm (hydrog.)	80.5	15.1	32.0	29.8	3.0	0
Margarine, liquid, soybean (hydrog.), soybean, & cottonseed	80.6	13.2	28.1	35.8	2.4	0
Margarine, soft, soybean (hydrog.) & cottonseed	80.4	16.5	31.3	29.1	1.6	0
Margarine, soft, soybean (hydrog.) & palm	80.4	17.1	25.2	34.6	1.9	0
Margarine, soft, soybean, soybean (hydrog.) & cottonseed (hydrog.)	80.4	16.1	30.7	30.1	2.8	0

Food item	Total fat	Fatty acids				Cholesterol
		Total saturated	Total monounsaturated	Total polyunsaturated	18:3	
	g	g	g	g	g	mg
Fats and Oils—Con.						
Mutton tallow	100	47.3	40.6	7.8	2.3	102
Rapeseed oil (Canola)	100	6.8	55.5	33.3	11.1	0
Rice bran oil	100	19.7	39.3	35.0	1.6	0
Salad dressing, comm., blue cheese, reg.	52.3	9.9	12.3	27.8	3.7	17
Salad dressing, comm., Italian, reg.	48.3	7.0	11.2	28.0	3.3	0
Salad dressing, comm., mayonnaise, imitation, soybean, w/o cholesterol	47.7	7.5	10.5	27.6	4.6	0
Salad dressing, comm., mayonnaise, safflower & soybean	79.4	8.6	13.0	55.0	3.0	59
Salad dressing, comm., mayonnaise, soybean	79.4	11.8	22.7	41.3	4.2	59
Salad dressing, comm., mayonnaise-type	33.4	4.7	9.0	18.0	2.0	26
Salad dressing, comm., Thousand Island, reg.	35.7	6.0	8.3	19.8	2.5	0
Salad dressing, home recipe, French	70.2	12.6	20.7	33.7	1.9	0
Salad dressing, home recipe, vinegar & soybean oil	50.1	9.1	14.8	24.1	1.4	0
Shortening, household, lard & veg. oil	100	40.3	44.4	10.9	1.1	56
Shortening, household, soybean (hydrog.) & cottonseed (hydrog.)	100	25.0	44.5	26.1	1.6	0
Shortening, special-purpose, for bread, soy (hydrog.) & cottonseed	100	22.0	33.0	40.6	4.0	0
Shortening, special-purpose, for cake mixes, soybean (hydrog.) & cottonseed (hydrog.)	100	27.2	54.2	14.1	1.1	0
Shortening, special-purpose, heavy-duty, frying, soybean (hydrog.)	100	18.4	43.7	33.5	2.4	0
Soybean lecithin	100	15.3	10.9	45.1	5.1	0
Soybean oil	100	14.4	23.3	57.9	6.8	0
Soybean oil (hydrog.) & cottonseed oil	100	14.9	43.0	37.6	2.8	0
Soybean oil (hydrog.) & palm (hydrog.)	100	14.9	43.0	37.6	2.6	0
Spread, margarine-like, about 60% fat, soybean (hydrog.) & palm (hydrog.)	60.8	14.1	26.0	18.1	1.6	0
Spread, margarine-like, about 60% fat, soybean (hydrog.), palm (hydrog.), & palm	60.8	13.5	24.1	20.4	1.6	0
Tomatoseed oil	100	19.7	22.8	53.1	2.3	0
Walnut oil	100	9.1	22.8	63.3	10.4	0
Wheat germ oil	100	18.8	15.1	61.7	6.9	0
Meat, Poultry, Fish, and Eggs						
Lamb						
Avocados, California, raw	17.3	2.6	11.2	2.0	.1	0
Raspberries	.6	Tr	Tr	.3	.1	0
Strawberries	.4	Tr	Tr	.2	.1	0
Veal						
Lamb, leg, rump (83% lean, 17% fat)	17.6	8.1	7.1	1.0	.3	0
Lamb, loin, rump (72% lean, 28% fat)	27.4	12.8	11.2	1.6	.5	0
Veal, leg roast with rump, raw (87% lean, 13% fat)	9.0	3.8	3.7	.6	.1	0

Food item	Total fat	Fatty acids				Cholesterol
		Total saturated	Total monounsaturated	Total polyunsaturated	18:3	
	g	g	g	g	g	mg
Legumes						
Beans, common, dry	1.5	0.2	0.1	0.9	0.6	0
Chickpeas, dry	5.0	.5	1.1	2.3	.1	0
Cowpeas, dry	1.9	.6	.1	.8	.3	0
Lentils, dry	1.2	.2	.2	.5	.1	0
Lima beans, dry	1.4	.3	.1	.7	.2	0
Peas, garden, dry	2.4	.4	.1	.4	.2	0
Soybeans, dry	21.3	3.1	4.4	12.3	1.6	0
Nuts and Seeds						
Beechnuts, dried	50.0	5.7	21.9	20.1	1.7	0
Butternuts, dried	57.0	1.3	10.4	42.7	8.7	0
Chia seeds, dried	26.3	10.5	7.3	7.3	3.9	0
Hickory nuts, dried	64.4	7.0	32.6	21.9	1.0	0
Soybean kernels, roasted & toasted	24.0	3.2	5.6	12.7	1.5	0
Walnuts, black	56.6	3.6	12.7	37.5	3.3	0
Walnuts, English/Persian	61.9	5.6	14.2	39.1	6.8	0
Pork						
Pork, cured, bacon, raw	57.5	21.3	26.3	6.8	.8	67
Pork, cured, breakfast strips, raw	37.1	12.9	16.9	5.6	.9	69
Pork, cured salt pork, raw	80.5	29.4	38.0	9.4	.7	86
Pork, fresh, ham, raw	20.8	7.5	9.7	2.2	.2	74
Pork, fresh, jowl, raw	69.6	25.3	32.9	8.1	.6	90
Pork, fresh, leaf fat, raw	94.2	45.2	37.2	7.3	.9	110
Pork, fresh, separable fat, raw	76.7	27.8	35.7	8.2	.7	93
Poultry						
Chicken, broiler fryers, flesh & skin, giblets, neck, raw*	14.8	4.2	6.1	3.2	.1	90
Chicken, dark meat, w/o skin, raw*	4.3	1.1	1.3	1.0	Tr	80
Chicken, light meat, w/o skin, raw*	1.7	.4	.4	.4	Tr	58
Chicken, skin only, raw*	32.4	9.1	13.5	6.8	.3	109
Turkey, flesh, with skin, roasted*	9.7	2.8	3.2	2.5	.1	82
Vegetables						
Beans, Navy, sprouted, cooked	.8	Tr	Tr	.5	.3	0
Beans, pinto, sprouted, cooked	.9	.1	Tr	.5	.3	0
Broccoli, raw	.4	Tr	Tr	.2	.1	0
Cauliflower, raw	.2	Tr	Tr	Tr	.1	0
Kale, raw	.7	Tr	Tr	.3	.2	0
Leeks, freeze-dried, raw	2.1	.3	Tr	1.2	.7	0
Lettuce, butterhead, raw	.2	Tr	Tr	.1	.1	0
Radish seeds, sprouted, raw	2.5	.7	.4	1.1	.7	0
Seaweed, Spirulina, dried	7.7	2.6	.7	2.0	.8	0
Soybeans, green, raw	6.8	.7	.8	3.8	3.2	0
Soybeans, mature seeds, sprouted, cooked	4.5	.5	.5	2.5	2.1	0
Spinach, raw	.4	Tr	Tr	.1	.1	0

* Contains trace amounts of 20:5, 22:5, and 22:6.